

LIST OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-4 (cancelled)

5. (Currently amended) A method for scheduling events in a computer processing system, comprising:

identifying ~~multiple~~ queues, each of the ~~multiple~~ queues associated with a corresponding priority, each of the queues including events;

defining a data structure with a root level having a node group, the node group having k number of nodes, each of the k number of nodes sharing a pointer, each of the k number of nodes stored contiguously in memory, wherein the k number is equal to a number of multiple queues;

associating the ~~multiple~~ queues with respective nodes of the data structure;

assigning a value representing the corresponding priority to the respective nodes;

determining a priority between the respective nodes based on respective values representing the corresponding priority to the respective nodes the value; and

selecting one of the events ~~multiple queues corresponding to a node~~ having a highest priority for transmission to a processing resource.

6. (Currently amended) The method of claim 5, further comprising:

rescheduling the node having the highest priority one of the multiple queues after selection.

7. (Currently amended) The method of claim 6, wherein the method operation of rescheduling the node having the highest priority one of the multiple queues after selection includes,

determining if the node having the highest priority one of the multiple queues will be empty after selection.

8. (Currently amended) The method of claim 7, further comprising:
if the node having the highest priority one of the multiple queues will be empty after selection, then the method includes,

removing the value representing the corresponding priority from the node having the highest priority respective nodes.

9. (Currently amended) The method of claim 7, further comprising:
if the node having the highest priority one of the multiple queues will not be empty after selection, then the method includes,
retaining the value representing the corresponding priority from the node having the highest priority respective nodes, thereby enabling rescheduling of the node having the highest priority one of the multiple queues after selection.

10. (previously presented) The method of Claim 5, further comprising:
resolving conflicts between respective nodes assigned a same value by rotating a pointer
among the respective nodes assigned the same value.

Claims 11-21 (cancelled)

22. (currently amended) A computer readable medium having program instructions
for scheduling events in a computer processing system, comprising:
program instructions for identifying ~~multiple~~ queues, each of the ~~multiple~~ queues
associated with a corresponding priority, each of the queues including events;
program instructions for defining a data structure with a root level having a node group,
the node group having k number of nodes, each of the k number of nodes sharing a pointer, each
of the k number of nodes stored contiguously in memory, wherein the k number is equal to a
number of ~~multiple~~ queues;
program instructions for associating the ~~multiple~~ queues with respective nodes of the
data structure;
program instructions for assigning a value representing the corresponding priority to the
respective nodes;
program instructions for determining a priority between the respective nodes based on
respective values representing the corresponding priority to the respective nodes the value; and
program instructions for selecting one of the events ~~multiple queues corresponding to a~~
node having a highest priority for transmission to a processing resource.

23. (currently amended) The computer readable medium of claim 22, further comprising:

rescheduling the node having the highest priority one of the multiple queues after selection.

24. (currently amended) The computer readable medium of claim 23, wherein the program instructions for rescheduling the node having the highest priority one of the multiple queues after selection includes,

determining if the node having the highest priority one of the multiple queues will be empty after selection.

25. (currently amended) The computer readable medium of claim 24, further comprising:

if the node having the highest priority one of the multiple queues will be empty after selection, then the computer readable medium includes,

program instructions for removing the value representing the corresponding priority from the node having the highest priority respective nodes.

26. (currently amended) The computer readable medium of claim 24, further comprising:

if the node having the highest priority one of the multiple queues will not be empty after selection, then the computer readable medium includes,

program instructions for retaining the value representing the corresponding priority from the node having the highest priority respective nodes, thereby enabling rescheduling of the node having the highest priority one of the multiple queues after selection.

27. (original) The computer readable medium of claim 22, further comprising:
program instructions for resolving conflicts between respective nodes assigned a same value by rotating an additional pointer among the respective nodes assigned the same value.